Build a Better Planet

Lower Duwamish Waterway Stakeholder Meeting

Boeing Plant 2

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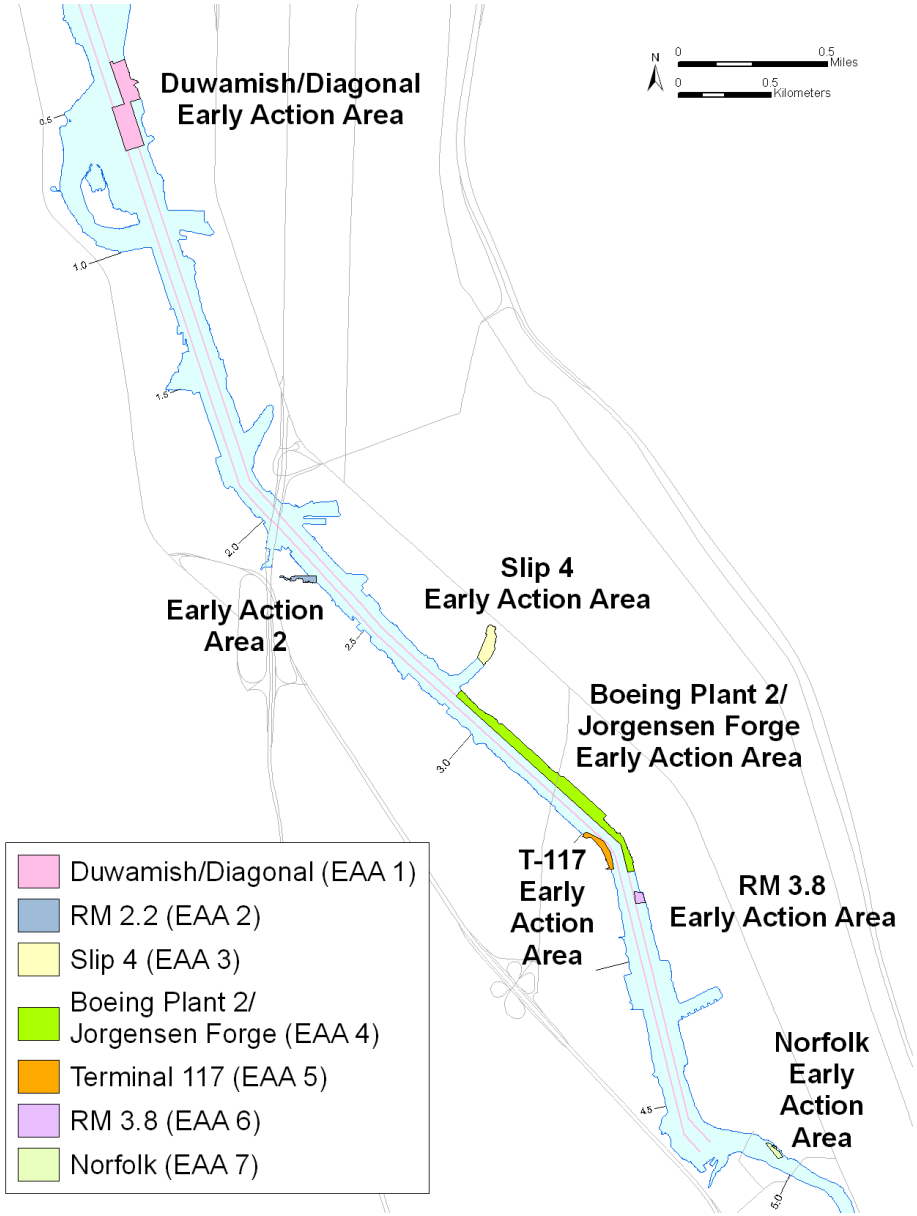
November 18, 2014

Lower Duwamish Waterway - *Early Action Sites*



Early Actions to Restore the Waterway

- $150M invested in cleanup of 29 acres
- LDWG-initiated early cleanups are predicted to reduce PCB sediment concentrations by ~50%

Completed

- Duwamish/Diagonal sedimentation remediation (King County)
- Norfolk CSO sediment remediation (King County)
- Slip 4 remediation (City of Seattle)
- Jorgensen Forge (Jorgensen)
- T117 (City of Seattle/Port of Seattle)

Underway

- Boeing Plant 2 (Boeing)

Boeing Plant 2

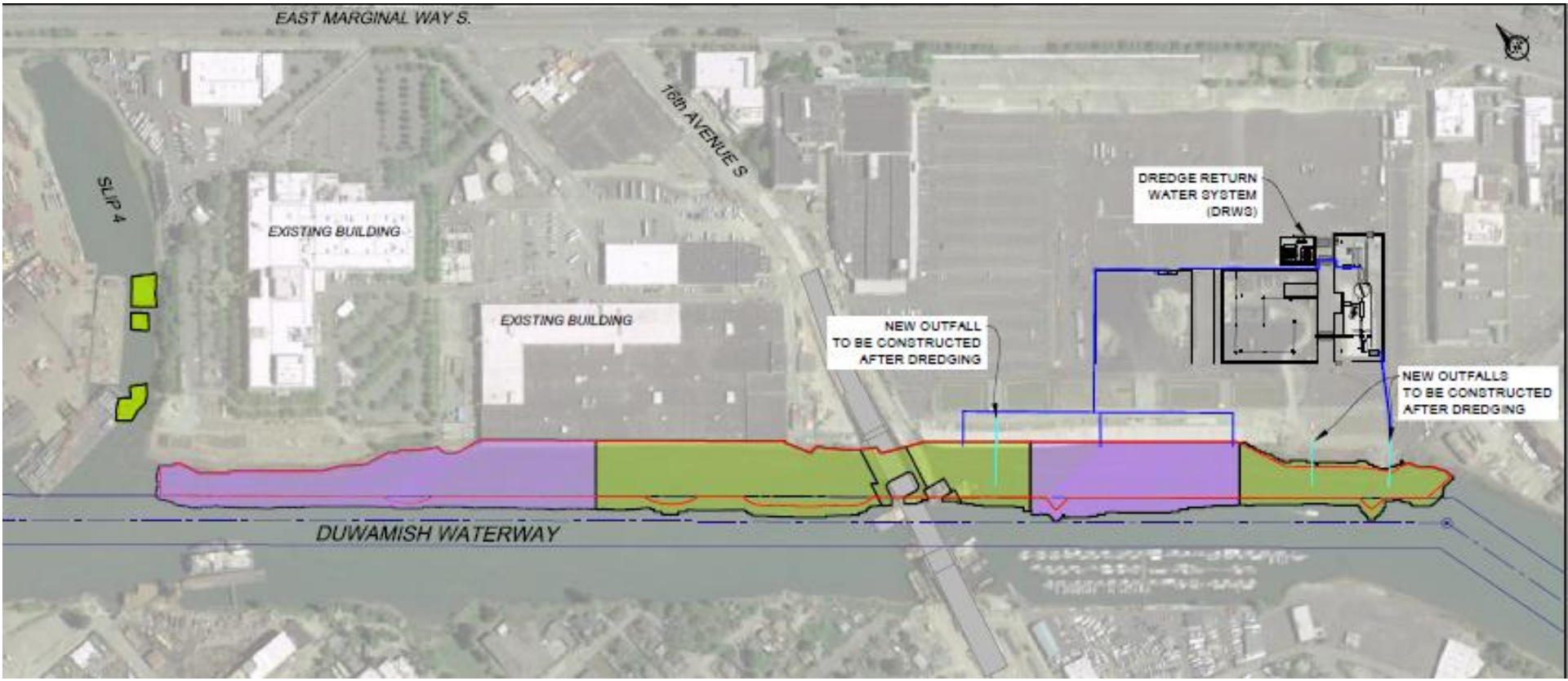
Boeing Plant 2 – *Air Force Plant 17*

Produced **7,000** B-17 Flying Fortress bombers.

Manufactured **over 10,000** large bombers and other aircraft for the U.S. military including:

- B-29 Superfortress bomber
- B-47 Stratojet
- B-52 Stratofortress, many of which are still in service with the U.S. Air Force.

Dredge Season 3 Footprint



Boeing Plant 2 – *Production Summary Data*

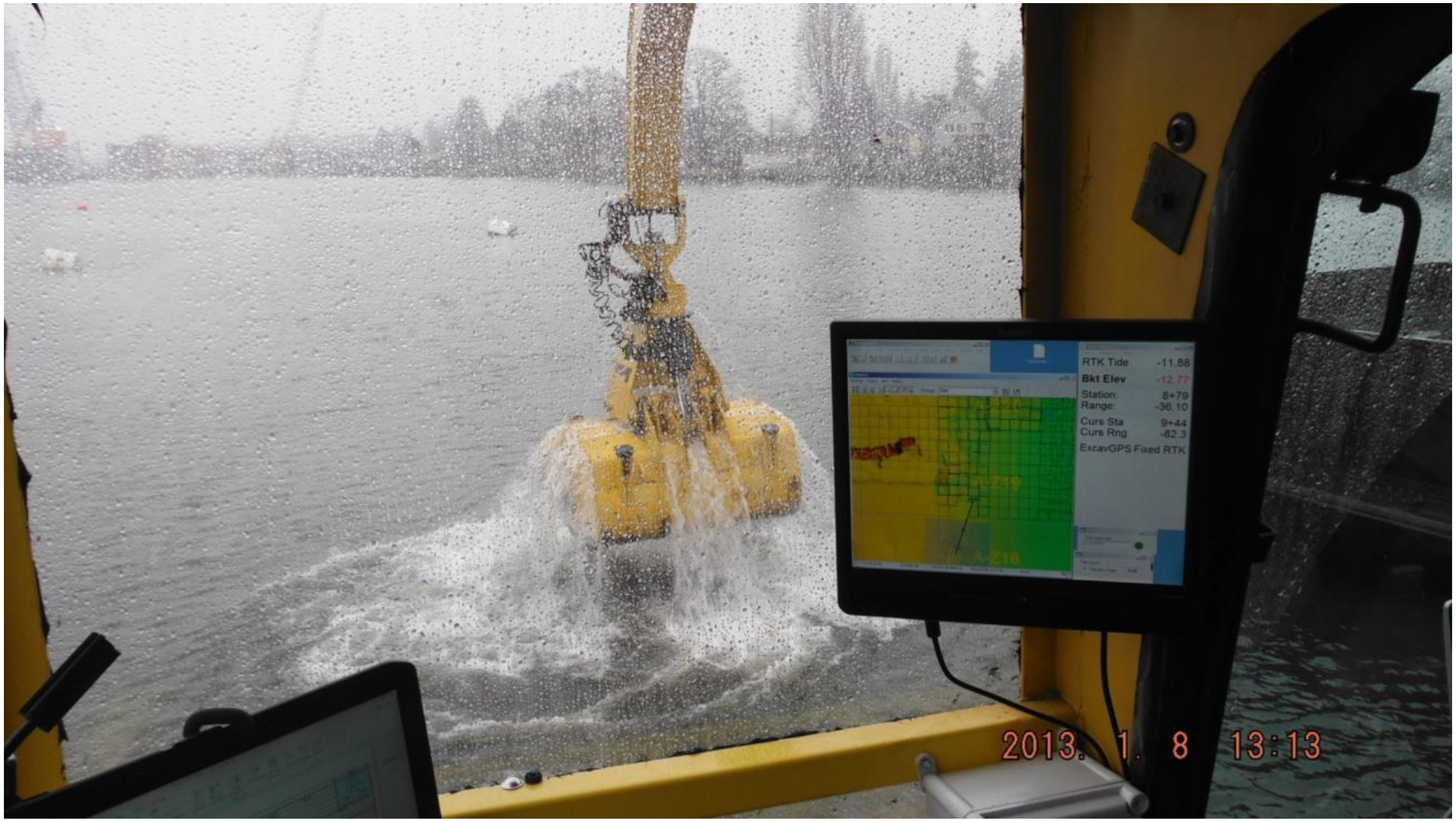
CS1, CS2, &CS3 Production Summary				
Prepared by Dalton, Olmsted & Fuglevand, Inc. 11/14/2014				
PRODUCTION SUMMARIES: Dredging, Transload (TTD), Dredge Water, Disposal, Backfilling				
PARAMETER	UNITS	PRODUCTIVITY		
		CS1	CS2	CS3 to date
Dredging				
a. Quantity	CY	34,115	48,513	47,345
b. Barge Loads	Barge	125	177	189
c. Approval Units	Unit	71	65	20
Transload				
a. Quantity from Barges	Tons	47,860	66,991	69,064
b. Average Barge Quantity	Tons	~380	~380	~340
c. Density	Tons/CY	1.40	1.38	1.46
d. Average Daily Quantity	Tons	1,060	1,820	1,650
Dredge Water				
a. Processed Volume (total, includes precip)	MG	6.37	9.30	7.85
b. Solids	Tons	2,040	1,706	1,330
Disposal				
a. Disposal Quantity	Tons	49,900	70,216	70,394
b. Density	Tons/CY	1.46	1.45	1.46
Backfilling				
a. Initial Quantity	Tons	9,600	6,155	2,922
b. Intermediate Quantity	Tons	10,000	49,247	19,823
c. Approval Units	Units	71	65	0

Boeing Plant 2 – *Final Dredge Season*

Boeing Plant 2 – *Final Dredge Season*

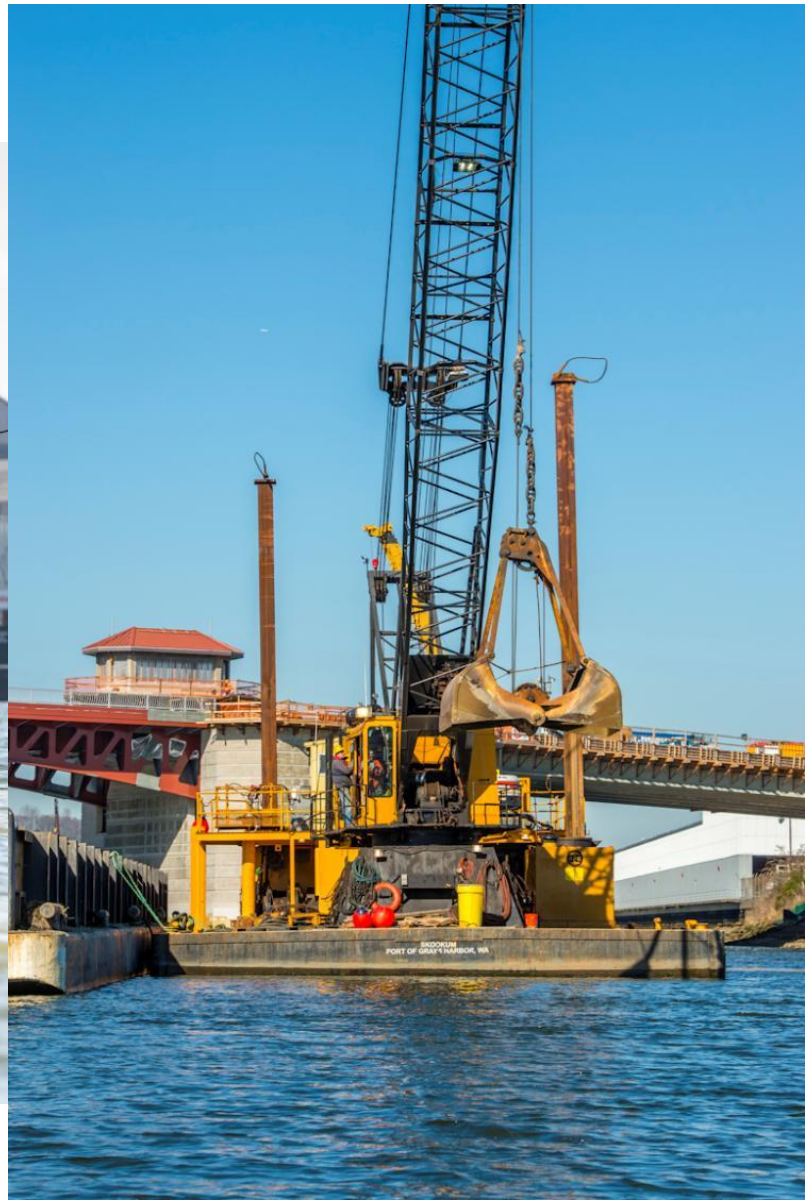
Boeing Plant 2 – *Stakeholder Engagement*

Boeing Plant 2 - *Dredge Accuracy*



Boeing Plant 2 - *Dredge Return Water System*

Boeing Plant 2 - *Backfill*



Boeing Plant 2 - *Water Quality Monitoring*

In situ Instruments

- Monitored water quality upstream and downstream
- Measured turbidity, pH, temperature, dissolved oxygen & salinity every 5-min
- Data posted to website

Dredge Return Water System

- Measured turbidity, pH, temperature, dissolved oxygen and salinity every 30-sec to 1-min when discharging
- Met turbidity criterion during discharge
- No exceedances of chemical criteria of discharged water

Dredge Monitoring

- Monitoring of dredging operation conducted on 40 days
- Turbidity exceeded >5ntu limit on 3 days attributable to dredging operations

Boeing Plant 2 - *Shoreline Restoration*

Boeing Plant 2 - *Habitat Restoration*

Boeing Plant 2 - *Fish & Wildlife Habitat*

BOEING

Rediscover

boeing.com/duwamish